# THE CLIMATE IN THE HOMES OF NAJD

- MUD HOMES CONSIST OF SOIL MIXED WITH HAY, IT IS PLACED IN A MOLD CONSISTING OF FOUR PIECES OF WOOD IN THE FORM OF A RECTANGLE OPEN FROM THE TOP AND BOTTOM. AND THE MIXTURE IS PLACED INSIDE IT; FOR THE CLAY TO TAKE IT' S SHAPE AND SIZE.





When building a home the polt of land on which to build the home must be determined then strings are placed to define the basics and then dig into the ground with a depth of two meters or less or more, and then begin to lay the foundation, which is stones and mud then it starts with the first layer and after it is left to dry then the second layer is erected and so on until the building is completed at a height determined by the owner of the home.

## ❑ AFTER CONSTRUCTION..

We refer to The tamam process, which is the plaster of the roof from below with mud, and the roof is made of wood from the trunks and palm fronds and the atl or sidr trees.



- The use of clay is an essential material in building the house, which is distinguished as a heat insulating material during the summer. And the humidity in a house built with mud remains about 50%, and this ensures a healthy climate throughout the year. It also stores and maintains heat during winter.



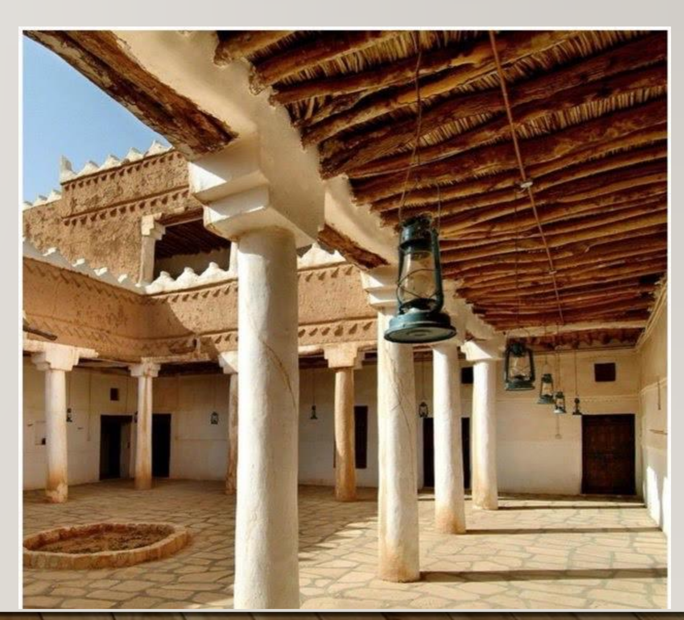
## ❑ MUD CONSTRUCTION HAS SEVERAL ADVANTAGES AND CHARACTERISTICS:

- ❑ The ability of clay to form and start its formation in addition to its low cost and efficiency in insulation, which is an item that cannot be overlooked in an area such as ours, dry and desert that keeps cold and isolates cold in the winter, and the clay with the rest of the elements is a rich material and features in most methods of construction and construction even modern ones.

# ❑ INNER COURTYARD:.

- ❑ the traditional houses in Najd were of the style that includes a central heavenly courtyard. It is like the traditional urban homes in Asqaa and other dry hot regions. The strength of this style is that each home is a square box open to space.

- Its narrow, high-ceilinged rooms border the courtyard, and the outer wall surrounded them. If the windows are found in the outer wall, they are very small, while most of the rooms have large windows, and its doors open to the central heavenly courtyard.

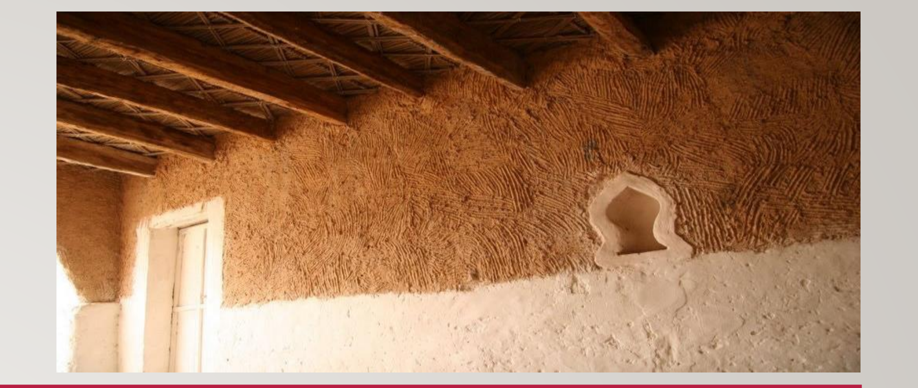


- the patio, its floor, and the soil underneath all act as a unit for radiating heat and for storing it. The high walls on all sides shade the courtyard, protecting it from the glare and direct rays of the sun during the greater part of the day,

but leaving it exposed to the coldest part of space, so it loses its heat during the day and night.



- the soil beneath the patio floor gets heat from everything that surrounds and attaches to it. This process is reinforced by the thermal transfer that occurs on the roof of the house during the day, and the air that is heated there, but it is transmitted during the night, in the manner of convection, rises down, while the newly formed layers of cold air descend to the floor of the yard, absorbing the heat from it, and from Walls and floors of rooms.



- These inner walls are protected from external thermal radiation by being in the shade during the day, thus limiting the movement of the outside hot air and staying cool.

- The walls and floors help to reduce the indoor air temperature, as well as help reduce the temperature of that part of the house that is designated for daily living.

- Some of the pictures of modern mud homes..





